

Kansas Manufacturing Solutions' 2021 Manufacturing in Kansas Annual Report



Trusted Advisors for Growth

MANUFACTURING IN KANSAS

MARCH 2021



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HIGHLIGHTS

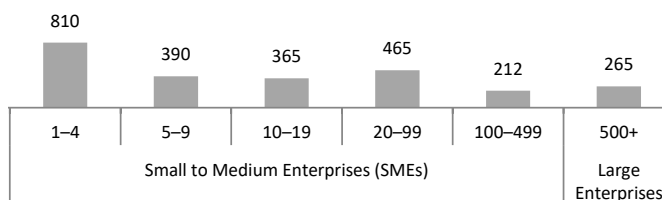
- Kansas is home to approximately 2,507 manufacturing firms.
- Manufacturing contributed \$27.4 billion to the Kansas economy in 2019, representing 15.6 percent of the state's total gross domestic product (GDP).
- Kansas ranks 12th among all states in its percentage of GDP from manufacturing.
- The manufacturing sector's 173,845 jobs accounted for 8.9 percent of Kansas total employment and 11.8 percent of total worker earnings in 2019.
- Earnings from manufacturing jobs comprise 14.7 percent of total worker earnings in non-metropolitan Kansas and 10.7 percent of worker earnings in metropolitan areas.
- The average manufacturing job in Kansas paid \$59,650 in wages and salaries in 2019.
- Kansas exported \$8.26 billion worth of manufactured goods to other countries in 2020.

NUMBER OF FIRMS

Kansas is home to approximately 2,507 manufacturing firms operating from 2,722 physical establishments throughout the state.

- 89.5 percent of Kansas manufacturing firms are owned by small or medium-sized enterprises (SMEs) with fewer than 500 paid employees.
- Large manufacturing enterprises, with 500 or more employees, account for 10.5 percent of Kansas manufacturing firms.
- A large fraction of Kansas manufacturing firms are small proprietorships or partnerships with no paid employees other than the principals. Known as "nonemployer firms,". These firms are not included in the 2,507 "employer" firms.*

NUMBER OF KANSAS MANUFACTURING FIRMS BY EMPLOYMENT SIZE OF THE PARENT ENTERPRISE



Source: U.S. Census Bureau

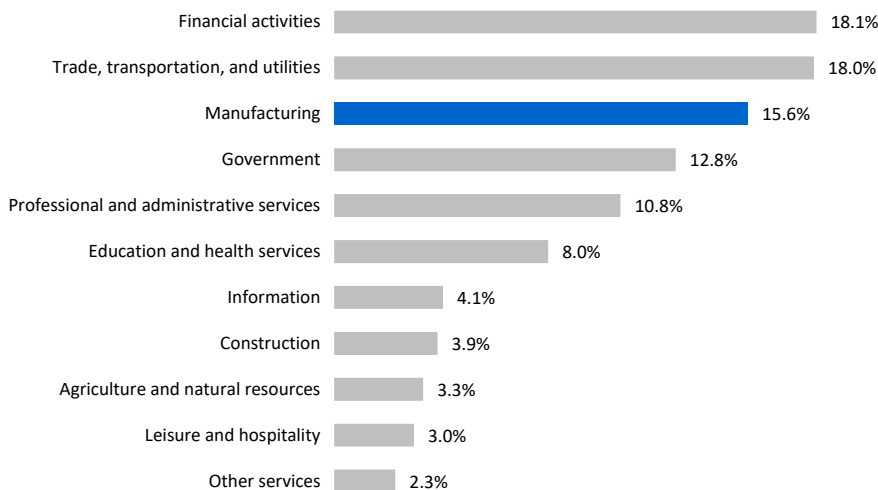
GROSS DOMESTIC PRODUCT

Gross domestic product (GDP) measures the contributions of labor and capital to the market value of goods and services produced in a state. The total GDP for Kansas industries in 2019 was \$176.5 billion.

The manufacturing sector contributed \$27.4 billion to the Kansas economy in 2019, representing 15.6 percent of the state's total GDP. Kansas ranks 12th among all states in the percentage of GDP derived from the manufacturing sector.

When measured by GDP size, manufacturing ranks third among major economic sectors in Kansas. Manufacturing ranks fifth in GDP size among major economic sectors nationally.

PERCENTAGE OF KANSAS GDP BY MAJOR SECTOR



Source: U.S. Bureau of Economic Analysis

Note: Agriculture and natural resources industries include production agriculture, agricultural services, forestry, fishing, hunting, and mining. Activities such as grain processing, ethanol production, meat slaughtering and processing, agricultural chemical and fertilizer production, and agricultural equipment manufacturing are classified within the manufacturing sector, per national industrial accounting standards. The financial activities sector includes finance, insurance, and real estate industries.

*Note: There are 2,918 small proprietorships or partnerships with no paid employees other than the principals. Known as "nonemployer firms," these establishments increase the total number of manufacturers in Kansas to 5,425. KMS provides support for these types of firms. However, to a much lesser degree than the 2,507 employer firms.

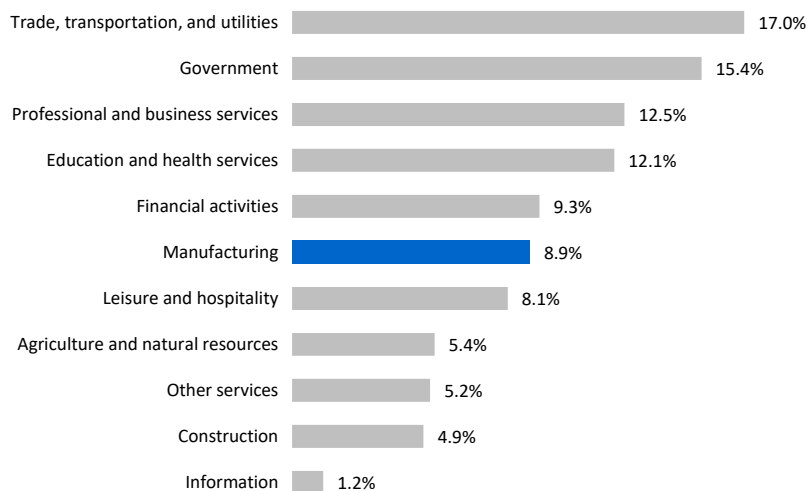
EMPLOYMENT

The Kansas manufacturing sector had 173,845 jobs in 2019, accounting for 8.9 percent of the state's total employment. In the United States, manufacturing accounted for 6.7 percent of total employment.

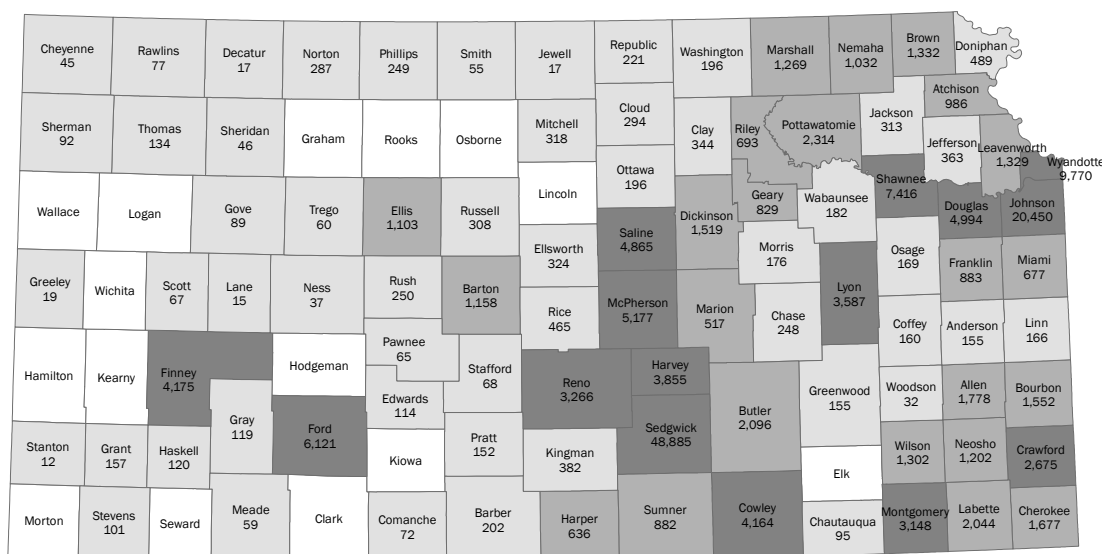
Measured by employment size, manufacturing ranks sixth among major economic sectors in Kansas. In the United States, manufacturing ranks seventh among major sectors.

More than half (61 percent) of Kansas manufacturing jobs are located in metropolitan areas. By county, manufacturing employment was highest in Sedgwick (48,885 jobs), followed by Johnson (20,450 jobs).

PERCENTAGE OF KANSAS JOBS BY MAJOR SECTOR



NUMBER OF MANUFACTURING JOBS BY COUNTY



Under 500 500 to 2,499 2,500 or more No data

Source: U.S. Bureau of Economic Analysis

Note: Employment statistics on this page describe the number of full-time and part-time jobs, as opposed to the number of employed persons.

THE DIVERSE KANSAS MANUFACTURING SECTOR

DURABLE AND NONDURABLE GOODS

Industries within the manufacturing sector are frequently grouped into two broad categories: durable goods and nondurable goods. *Durable* goods are tangible products that can be stored or inventoried and that have an average life of at least three years. *Nondurable* goods have an average life of less than three years.

Kansas durable goods industries account for a higher fraction of jobs and GDP than nondurable goods industries. Durable goods production accounts for 54.8 percent of Kansas manufacturing GDP and 59.9 percent of its manufacturing jobs. Nationally, durable goods production accounts for 56.3 percent of manufacturing GDP and 62.5 percent of manufacturing jobs.

SPECIALIZATION BY INDUSTRY

Areas of relative industrial specialization within the manufacturing sector may be identified using “location quotients,” which divide a state’s percentage of employment in a given industry by that same industry’s percentage of U.S. employment. A location quotient greater than one indicates specialization and suggests the state has a relative competitive advantage in that industry. Kansas demonstrates relative specialization in the following manufacturing industries: transportation equipment, petroleum and coal, food and beverages, machinery, printing and related, and plastics and rubber products.

DURABLE GOODS EMPLOYMENT

Transportation equipment, other.....	34,389
Machinery.....	20,154
Fabricated metals.....	17,720
Nonmetallic mineral products.....	5,269
Miscellaneous.....	5,166
Computers and electronics.....	4,013
Furniture and related products.....	3,670
Electrical equipment and appliances.....	3,599
Primary metals.....	1,996
Motor vehicles, parts, and related.....	(N/A)
Wood products.....	(N/A)
<i>Total, durable goods.....</i>	<i>104,177</i>

NONDURABLE GOODS EMPLOYMENT

Food and beverages.....	35,732
Plastics and rubber products.....	10,576
Chemicals.....	8,545
Printing and related.....	8,312
Petroleum and coal.....	2,471
Textiles, apparel, leather, and related.....	2,235
Paper.....	1,797
<i>Total, non-durable goods.....</i>	<i>69,668</i>

KANSAS MANUFACTURING INDUSTRIES RANKED BY GDP

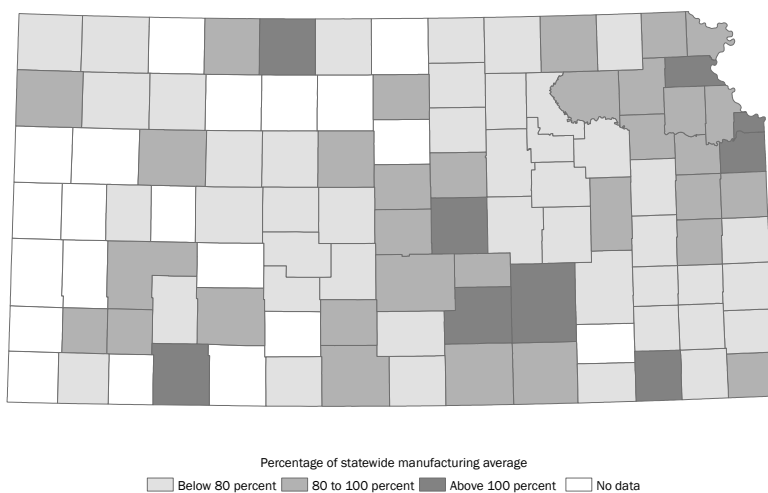
	2019 GDP (\$ millions)	% of Kansas Manufacturing Totals			Comparative U.S. Percentages			Location Quotient
		GDP	Jobs	Establishments	GDP	Jobs	Establishments	
Transportation equipment.....	8,563	31.2%	(N/A)	4.4%	14.0%	12.9%	3.6%	(N/A)
Motor vehicle parts and related.....	995	3.6%	(N/A)	(N/A)	7.0%	7.4%	(N/A)	(N/A)
Other transportation equipment.....	7,568	27.6%	19.8%	(N/A)	7.0%	5.5%	(N/A)	3.58
Food and beverages.....	4,499	16.4%	20.6%	12.9%	11.3%	15.0%	14.4%	1.37
Petroleum and coal.....	3,459	12.6%	1.4%	1.2%	6.7%	0.9%	0.6%	1.61
Chemicals.....	2,111	7.7%	4.9%	3.8%	16.7%	6.7%	4.4%	0.74
Machinery.....	1,979	7.2%	11.6%	8.1%	6.9%	8.7%	5.9%	1.33
Fabricated metals.....	1,614	5.9%	10.2%	17.3%	6.9%	11.4%	14.8%	0.89
Plastics and rubber products.....	1,098	4.0%	6.1%	2.9%	3.5%	5.5%	2.6%	1.10
Printing and related.....	912	3.3%	4.8%	9.0%	1.7%	3.6%	8.1%	1.34
Nonmetallic mineral products.....	671	2.4%	3.0%	4.7%	2.8%	3.4%	3.7%	0.90
Computers and electronics.....	661	2.4%	2.3%	2.1%	13.0%	8.1%	3.2%	0.28
Electrical equipment and appliances.....	596	2.2%	2.1%	1.6%	2.8%	3.1%	1.9%	0.66
Miscellaneous.....	371	1.4%	3.0%	13.6%	4.1%	5.5%	14.8%	0.54
Furniture and related products.....	240	0.9%	2.1%	4.6%	1.3%	3.1%	5.4%	0.67
Paper.....	239	0.9%	1.0%	0.5%	2.6%	2.7%	0.8%	0.38
Wood products.....	213	0.8%	(N/A)	5.5%	1.8%	3.3%	6.2%	(N/A)
Primary metals.....	135	0.5%	1.1%	1.2%	2.7%	2.9%	1.3%	0.39
Textiles, apparel, leather, and related.....	88	0.3%	1.3%	6.6%	1.1%	3.1%	8.2%	0.41

Sources: U.S. Bureau of Economic Analysis and County Business Patterns, U.S. Census Bureau

AVERAGE MANUFACTURING EARNINGS PER JOB

- Kansas manufacturing workers earned an average of \$59,650 in wages and salaries in 2019. Workers across all sectors of the Kansas economy earned an average of \$48,060 in wages and salaries per job.
- Average earnings per job in the Kansas manufacturing sector were 85.3 percent of the U.S. average for manufacturing jobs. All-sector average earnings per job in Kansas were 81.2 percent of the U.S. average.
- Average wage and salary earnings in manufacturing ranked fourth among all major sectors in the Kansas economy.
- By detailed manufacturing industry, average earnings were highest in petroleum and coal products manufacturing, at \$107,800 per job.
- Manufacturing wages vary across the state, with higher levels often found in and near metropolitan areas and larger cities. In 2019, the top three counties by average manufacturing wages and salaries were Atchison (\$77,650), Butler (\$72,430), and Wyandotte (\$71,990).

AVERAGE MANUFACTURING WAGES BY COUNTY



AVERAGE WAGE AND SALARY EARNINGS PER JOB IN KANSAS (\$000S)

By Major Sector

Average for all sectors.....	48.1
Financial activities.....	69.0
Information.....	66.4
Professional and business services.....	64.6
Manufacturing.....	59.7
Construction.....	57.0
Agriculture and natural resources.....	47.8
Government.....	44.4
Education and health services.....	43.9
Trade, transportation, and utilities.....	43.5
Other services.....	35.6
Leisure and hospitality.....	17.3

By Manufacturing Industry

Petroleum and coal.....	107.8
Transportation equipment.....	76.1
Chemicals.....	71.9
Computers and electronics.....	67.2
Apparel.....	67.0
Paper.....	65.6
Machinery.....	56.4
Nonmetallic minerals.....	55.4
Electrical equipment and appliances.....	55.0
Primary metals.....	52.7
Food.....	52.6
Plastics and rubber products.....	51.3
Miscellaneous.....	50.5
Fabricated metals.....	49.5
Printing and related.....	45.1
Beverage and tobacco.....	41.8
Wood products.....	41.7
Furniture and related.....	39.0
Textile product mills.....	35.1
Textile mills.....	(N/A)
Leather and allied products.....	(N/A)

Sources: U.S. Bureau of Economic Analysis, U.S. Bureau of Labor Statistics

EXPORTS FROM KANSAS

BY TYPE OF GOOD

In 2020, the state of Kansas was the transportation origin for \$10.4 billion worth of merchandise exports including agricultural commodities, raw materials, and manufactured goods. Manufactured goods accounted for 79 percent of the state's total exports.

With \$8.26 billion worth of manufactured exports in 2020, Kansas ranked 32nd among all states on this measure (see Export Data Notes for information about export measurement).

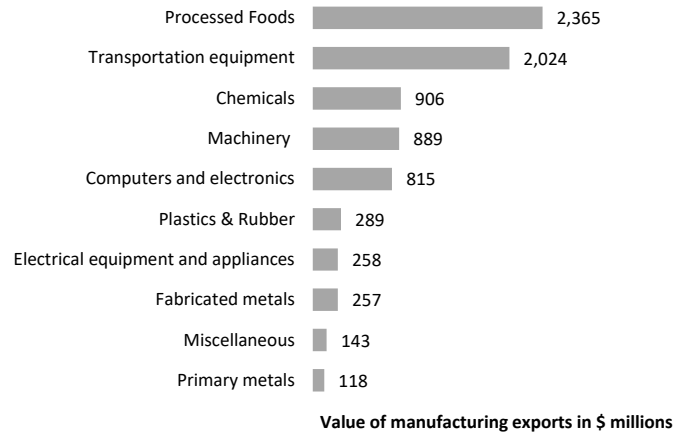
The single largest manufacturing export industry for Kansas was processed foods manufacturing, which accounted for 28.6 percent of the state's total manufacturing exports.

BY DESTINATION

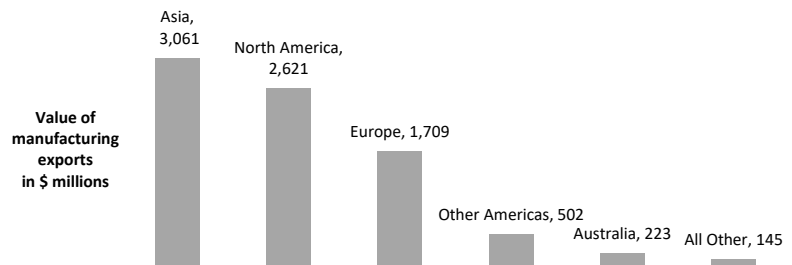
The greatest share (37.1 percent) of Kansas manufactured exports are shipped to Asia. Trading partners in North America and Europe follow as the top importers of manufactured goods from Kansas.

Canada was the top destination country for manufactured exports from Kansas in 2020, followed by Mexico and Japan.

TOP 10 MANUFACTURING EXPORT INDUSTRIES FOR KANSAS



KANSAS MANUFACTURING EXPORT DESTINATIONS



EXPORT DATA NOTES

Origin of Movement

It is important to note that Kansas export totals do not reflect the value of agricultural and other goods that were originally produced in Kansas but ultimately exported from other states. The trade statistics on this page are based on origin of movement (OM) data from the U.S. Department of Commerce. The OM method credits exports to the state where the goods began their final journey to the point of exit from the United States, as specified on official U.S. export declarations filed by shippers. The place from which merchandise began its export journey is not necessarily the place where the merchandise was produced. In many cases, the OM is the location of a distributor, warehouse, or cargo processing facility. Consequently, OM cannot be used to reliably describe the production origin of U.S. exports.

Source: ITA Trade Stats Express, Office of Trade and Industry Information, International Trade Administration, U.S. Department of Commerce

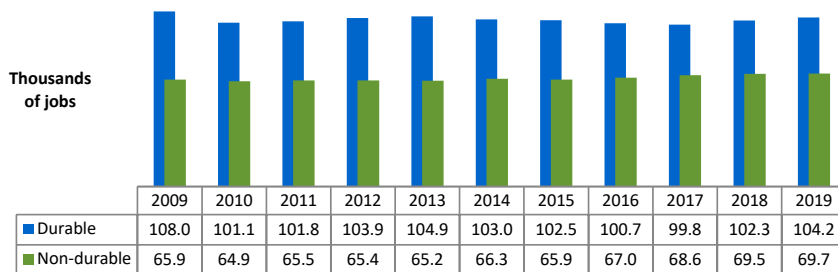
TOP 10 COUNTRIES FOR KANSAS MANUFACTURING EXPORTS

Exports (\$ millions)

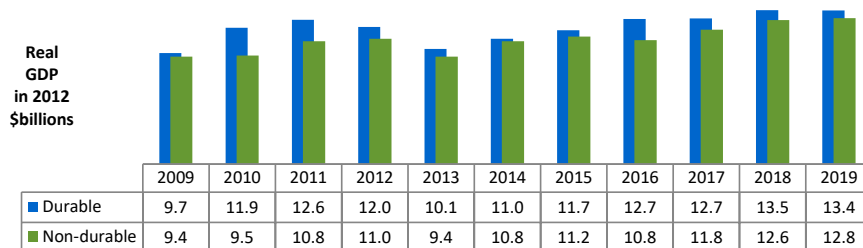
Canada.....	1,582
Mexico.....	1,039
Japan.....	855
China.....	449
South Korea.....	411
Germany.....	387
United Kingdom.....	368
Singapore.....	277
Australia.....	223
Taiwan.....	194

RECENT TRENDS IN KANSAS MANUFACTURING

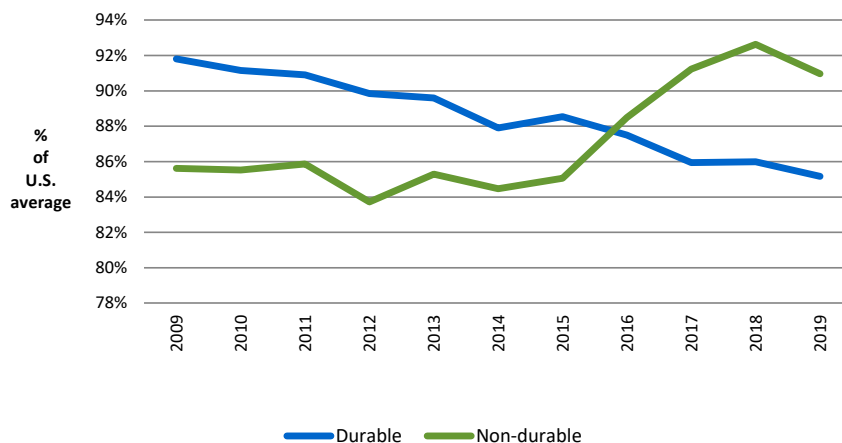
MANUFACTURING JOBS



MANUFACTURING GDP



KANSAS MANUFACTURING WAGE & SALARY EARNINGS PER JOB COMPARED TO U.S. AVERAGES



KANSAS EMPLOYMENT GAINS AND LOSSES IN THOUSANDS OF JOBS, 2009-2019

BY MAJOR SECTOR

Professional and business services	42.6
Financial activities	30.3
Education and health services	22.0
Leisure and hospitality	21.1
Trade, transportation, and utilities	19.2
Construction	6.0
Other services	5.5
Agriculture and natural resources	2.5
Manufacturing	(0.0)
Government	(0.9)
Information	(15.8)

BY DETAILED MANUFACTURING INDUSTRY

Durable Goods

Fabricated metals	3.91
Machinery	3.40
Electrical eqpt. & appliances	(0.11)
Nonmetallic mineral products	(0.50)
Primary metals	(0.58)
Furniture and related products	(0.58)
Transportation equipment, other	(3.93)
Computers and electronics	(4.04)
Wood products	(N/A)
Motor vehicles and related	(N/A)

Nondurable Goods

Food and beverages	3.71
Plastics and rubber products	1.94
Chemicals	1.32
Petroleum and coal	0.48
Paper	(0.48)
Textiles, apparel, leather, and related	(1.30)
Printing and related	(1.89)

Miscellaneous Manufacturing	(0.65)
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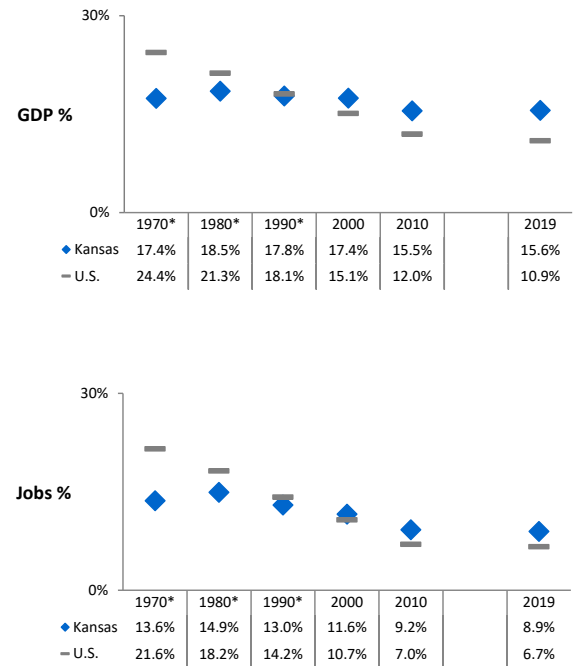
Source: U.S. Bureau of
Economic Analysis

MANUFACTURING SECTOR PERCENTAGE SHARES OF GDP AND EMPLOYMENT

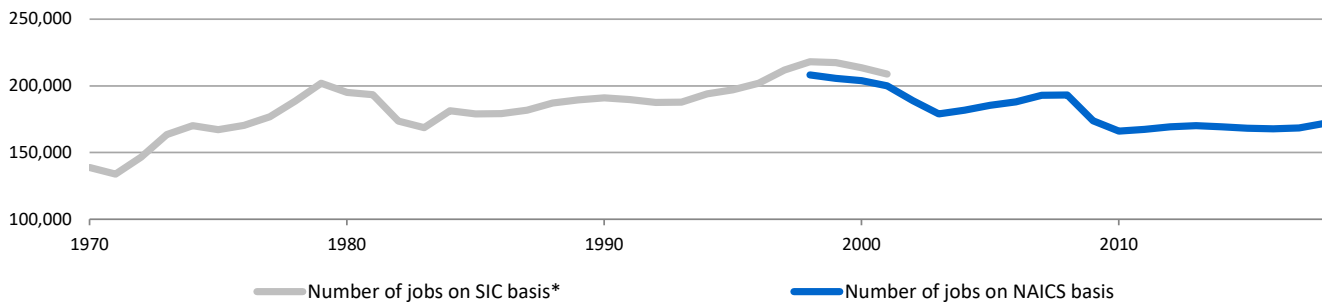
Manufacturing has accounted for a declining share of U.S. GDP in recent decades, with the manufacturing sector's contribution falling from 24.4 percent to 12.0 percent between 1970 and 2010. In 2019, the national percentage was 10.9 percent.

In Kansas, the share of total GDP contributed by manufacturing dropped from 17.4 percent in 1970 to 15.5 percent in 2010. The manufacturing sector's share increased slightly to 15.6 percent by 2019.

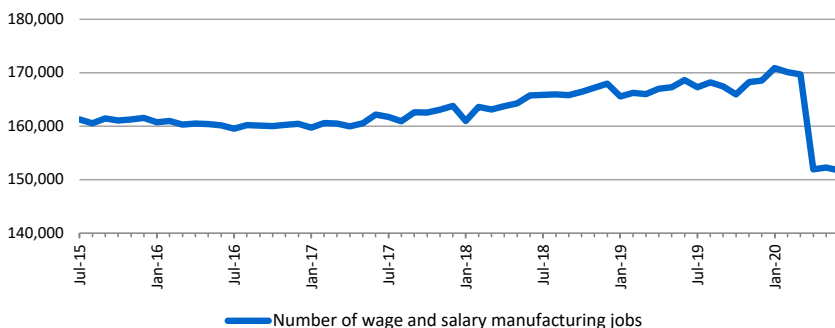
Manufacturing activity also requires a smaller share of jobs compared to decades past. Manufacturing jobs accounted for 21.6 percent of total U.S. jobs in 1970, compared to 7.0 percent in 2010. The share was slightly lower at 6.7 percent nationally in 2019. In Kansas, manufacturing jobs now account for 8.9 percent of total employment, compared to 9.2 percent in 2010 and 13.6 percent in 1970.



KANSAS HISTORICAL MANUFACTURING EMPLOYMENT



RECENT MONTHLY MANUFACTURING JOB LEVELS IN KANSAS

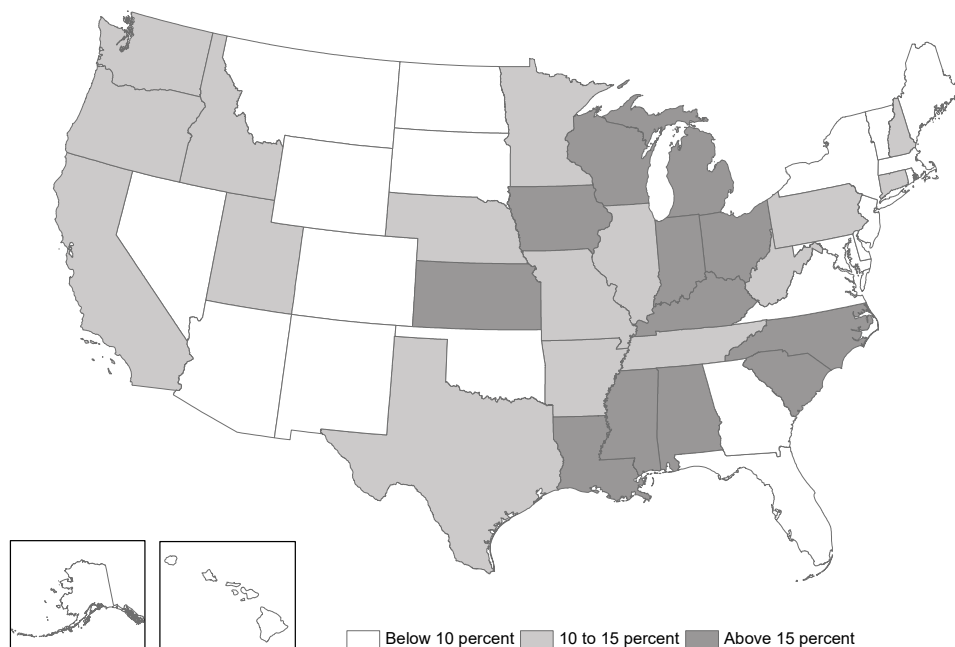


*SIC and NAICS

The North American Industry Classification System (NAICS) is used by Federal statistical agencies in classifying business establishments for the purpose of collecting, analyzing, and publishing statistical data. NAICS replaced the Standard Industrial Classification (SIC) system in 1997. Historical data compiled under the SIC system, indicated with an asterisk (*) on this page, are not directly comparable to data compiled on a NAICS basis.

Sources: U.S. Bureau of Economic Analysis and U.S. Bureau of Labor Statistics

PERCENTAGE OF STATE GDP FROM MANUFACTURING

TOP 15 STATES
BY % OF GDP
FROM
MANUFACTURING

Indiana	26.4%
Louisiana	20.0%
Wisconsin	18.6%
Michigan	18.6%
Kentucky	17.8%
Iowa	17.4%
North Carolina	17.2%
Alabama	16.8%
South Carolina	16.3%
Ohio	16.1%
Mississippi	16.1%
Kansas	15.6%
Arkansas	14.9%
Tennessee	14.5%
Oregon	13.6%

INDICATORS OF INNOVATION POTENTIAL: WHERE KANSAS RANKS
AMONG ALL STATES

WORKFORCE

RANK

Kansas employs
11.9 engineers for
every thousand
workers.

The U.S. economy
demands 12.5
engineers per
thousand workers.

Percentage of adults with high school diploma or higher.....	17
Percentage of adults with bachelor's degree or higher.....	18
Engineers as a percentage of the workforce.....	24
Science & engineering degrees as % of higher education degrees conferred.....	45

RESEARCH AND TECHNOLOGY

RANK

High-technology firms as a percentage of all business establishments.....	21
Business R&D performance as a percentage of private sector GDP.....	24
Academic R&D in science & engineering fields per \$1 million in GDP.....	25
Utility patents awarded per 1,000 jobs.....	31

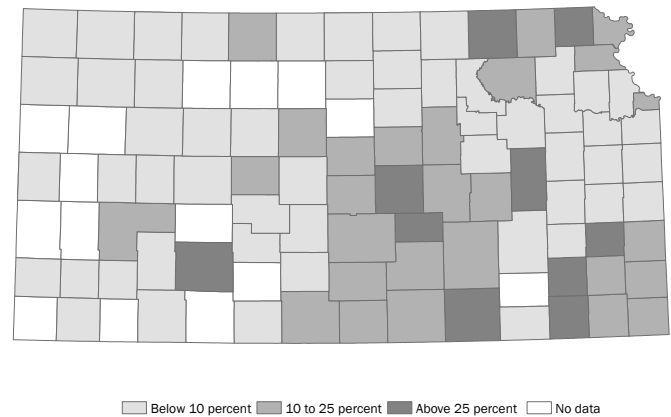
Sources this page: U.S. Bureau of Economic Analysis; American Community Survey, U.S. Census Bureau; National Science Board Science & Engineering Indicators, National Science Foundation; and U.S. Patent and Trademark Office

CONTRIBUTIONS TO LOCAL ECONOMIES

The manufacturing sector contributes to local economies in Kansas in a number of ways. Manufacturing firms pay wages to local workers, they purchase raw materials and services from local producers and firms, their profits accrue to local owners and investors, and they pay taxes to local and state governments.

- On average, manufacturing jobs account for 8.9 percent of total employment in Kansas. This fraction is lower in the state's metropolitan counties (7.9 percent) and higher in non-metropolitan counties (11.2 percent), according to data for 2019.
- Manufacturing accounts for 11.8 percent of total worker earnings in Kansas. The sector's earnings percentage exceeds its employment percentage because manufacturing jobs tend to pay higher wages than many other sectors.
- Manufacturing accounts for 10.7 percent of total earnings in Kansas metropolitan areas and 14.7 percent of total earnings in non-metropolitan regions.
- Of the 105 counties in Kansas, at least 10 derive more than one quarter of total worker earnings from manufacturing jobs.
- The top three counties by percentage of total earnings from manufacturing in 2019 were McPherson (37.3%), Cowley (34.6%), and Wilson (33.7%).

**MANUFACTURING PERCENTAGE OF
TOTAL EARNINGS**



Source: U.S. Bureau of Economic Analysis